

SHH Monoclonal Antibody

Description

Product type	Antibody
Code	BT-MCA3688
Host	Mouse
Isotype	Mouse IgG1
Size	100µL, 50µL
Immunogen	Purified recombinant fragment of human SHH (AA: 26-161) expressed in E. Coli.
Mol wt	49.6kDa
Species reactivity	Human,Mouse,Monkey
Clonality	Monoclonal
Recommended application	WB,IHC,FCM
Concentration	N/A
Full name	N/A
Synonyms	TPT;HHG1;HLP3;HPE3;SMMCI;TPTPS;MCOPCB5

This product is for research use only, not for use in human, therapeutic or diagnostic procedure.

Background

This gene encodes a protein that is instrumental in patterning the early embryo. It has been implicated as the key inductive signal in patterning of the ventral neural tube, the anterior-posterior limb axis, and the ventral somites. Of three human proteins showing sequence and functional similarity to the sonic hedgehog protein of *Drosophila*, this protein is the most similar. The protein is made as a precursor that is autocatalytically cleaved; the N-terminal portion is soluble and contains the signalling activity while the C-terminal portion is involved in precursor processing. More importantly, the C-terminal product covalently attaches a cholesterol moiety to the N-terminal product, restricting the N-terminal product to the cell surface and preventing it from freely diffusing throughout the developing embryo. Defects in this protein or in its signalling pathway are a cause of holoprosencephaly (HPE), a disorder in which the developing forebrain fails to correctly separate into right and left hemispheres. HPE is manifested by facial deformities. It is also thought that mutations in this gene or in its signalling pathway may be responsible for VACTERL syndrome, which is characterized by vertebral defects, anal atresia, tracheoesophageal fistula with esophageal atresia, radial and renal dysplasia, cardiac anomalies, and limb abnormalities. Additionally, mutations in a long range enhancer located approximately 1 megabase upstream of this gene disrupt limb patterning and can result in preaxial polydactyly.

Recommended Dilution

WB: 1:500 - 1:2000

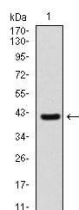
IHC-p: 1:200 - 1:1000

FCM: 1:200 - 1:400

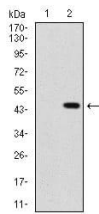
ELISA: 1:10000

Not yet tested in other applications.

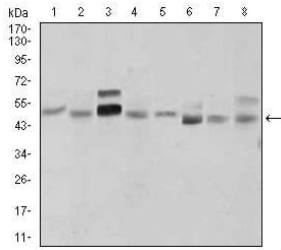
Images



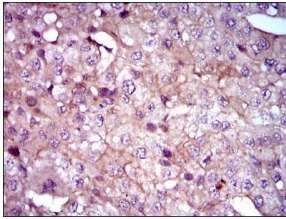
Western blot analysis using SHH mAb against human SHH recombinant protein. (Expected MW is 41 kDa)



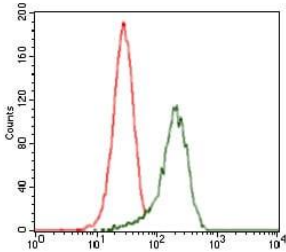
Western blot analysis using SHH mAb against HEK293 (1) and SHH (AA: 26-161)-hlgGFc transfected HEK293 (2) cell lysate.



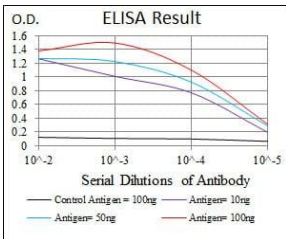
Western blot analysis using SHH mouse mAb against LNCaP (1), HepG2 (2), PANC-1 (3), HeLa (4), SK-N-SH (5), F9 (6), NIH3T3 (7), and COS7 (8) cell lysate.



Immunohistochemical analysis of paraffin-embedded liver cancer tissues using SHH mouse mAb with DAB staining.



Flow cytometric analysis of HeLa cells using SHH mouse mAb (green) and negative control (red).



Black line: Control Antigen (100 ng); Purple line: Antigen(10ng); Blue line: Antigen (50 ng); Red line: Antigen (100 ng);

Storage

Store at 4°C short term. Aliquot and store at -20°C long term.

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